

## **EPA INTERIM EVALUATION OF MARYLAND'S 2014-2015 MILESTONES**

The U.S. Environmental Protection Agency (EPA) is providing this interim evaluation of Maryland's progress towards meeting its 2014-2015 sector-specific milestones and Watershed Implementation Plan (WIP). The Chesapeake Bay restoration operates through a measurable accountability framework. This framework includes the WIPs, annual progress reviews, and two-year milestones. Jurisdictions have the opportunity to adaptively manage their plans and make necessary adjustments to stay on track within this framework and at the midpoint assessment. In 2016, EPA will evaluate whether Maryland achieved its 2014-2015 milestones and has commitments to achieve the Chesapeake Bay Program (CBP) partnership goal of practices in place by 2017 that would achieve 60% of the nitrogen, phosphorus and sediment reductions necessary to achieve water quality standards in the Bay compared to 2009.

### **Load Reduction Review**

When evaluating 2014-2015 milestone implementation, EPA is comparing progress to expected pollutant reduction targets to assess whether statewide and sector load reductions are on track to have practices in place by 2017 that will achieve 60% of necessary reductions compared to 2009.

During the 2014 reporting period, Maryland did increase its implementation of best management practices (BMPs), but additional BMP implementation beyond what was anticipated when the 2014-2015 milestones were developed may be necessary. New information such as U.S. Department of Agriculture agricultural census, population and land cover data that the CBP partnership approved for use in its tools to track progress indicates that since 2007, Maryland has seen changes in agricultural production beyond what was anticipated when the 2014-2015 milestones were developed. These changes in agricultural production have resulted in increases in the estimates of nitrogen loads and decreases in estimates of phosphorus loads to the Chesapeake Bay. EPA expects these changes and other new information as appropriate will be used in the development of future milestones, which is consistent with the adaptive management framework.

According to the data provided by Maryland for the 2014 progress run, Maryland is on track to meet the 2017 targets for phosphorus and sediment but, based on new information, is not on track for meeting the nitrogen targets. Among source sectors, progress on phosphorus and sediment within wastewater and agriculture is on track due to the faster implementation pace and new information in those sectors; urban sector progress is moving at a slower pace and is off track when compared to 2017 sector goals. Assuming a linear rate of implementation between 2009 and 2017, all sectors (agriculture, urban, wastewater and septic) are off track for achieving the nitrogen targets, but EPA recognizes that current Enhanced Nutrient Removal (ENR) upgrades for major wastewater treatment facilities are in progress and efforts continue to accelerate implementation across all sectors.

### **2014-2015 Milestone Achievements**

#### **Agriculture – Ongoing Oversight**

- EPA commends Maryland for moving forward with the proposed Phosphorus Management Tool regulations, which is a key component of Maryland's WIP and will help ensure that

programs and capacity are in place to support farmers in properly managing phosphorus on agricultural lands based on the latest science.

- Maryland is making good progress towards its cover crop, conservation tillage, buffers, and decision agriculture implementation commitments.
- Maryland's Annual Implementation Reports continue to be useful in tracking nutrient applications, as well as practices such as high residue tillage management.
- Maryland Department of Agriculture continues to report annual compliance rate implementation for nutrient management plans.
- EPA supports Maryland's financial commitment to advance technologies that address manure nutrient imbalances.

#### **Urban/Suburban Stormwater – Ongoing Oversight**

- Maryland completed issuance of the Phase I Municipal Separate Storm Sewer System (MS4) permits and the Construction General Permit in accordance with the agreed-upon schedule by EPA and Maryland.
- Maryland finalized MS4 guidance in August 2014 and is including the guidance in Phase I and II MS4 permits as they are promulgated.
- Maryland signed a Letter of Agreement with EPA on June 17, 2014 on how to address findings from EPA's assessment of Maryland's stormwater program.

#### **Wastewater Treatment Plants and Onsite Systems – Ongoing Oversight**

- Maryland issued discharge permits with wasteload allocations and ENR requirements for three minor wastewater treatment plants that executed grant agreements for Biological Nutrient Removal funding.

#### **Offsets and Trading – Ongoing Oversight**

- Maryland completed the development of an online trading and tracking system for agriculture. Maryland is currently developing a complementary online tool to assess urban offset needs. Through this process, the registry, marketplace, and administrative modules will be enhanced to meet expanded data collection needs and reporting requirements.

#### **Improvements to Meet 2014-2015 Milestones and Maintain WIP Progress**

##### **Urban/Suburban Stormwater – Ongoing Oversight**

- EPA expects Maryland to issue the tentative determinations for the Phase II MS4 permits by the end of 2015.
- EPA recommends that Maryland report its progress for implementing stormwater BMPs associated with new construction, redevelopment and retrofits in accordance with the performance standards and retrofits methods approved by the CBP partnership in 2012.

##### **Wastewater Treatment Plants and Onsite Systems – Ongoing Oversight**

- EPA expects additional information about the options and schedule to revise the septic implementation strategy.

### **Offsets and Trading – Ongoing Oversight**

- EPA expects additional information on the next steps for the Accounting for Growth regulations or an alternative milestone commitment to account for growth if these regulations do not move forward.
- EPA recommends that Maryland provide a schedule for finalizing the revised policy documents that will address EPA's nine elements of trading programs common to all Bay jurisdictions.

### **Tracking, Reporting and Verification**

- EPA expects all Chesapeake Bay watershed jurisdictions, including Maryland, to submit a draft BMP verification program quality assurance project plan by June 30, 2015, consistent with the schedule and guidelines adopted by the Chesapeake Bay Program Principals' Staff Committee. EPA further expects Maryland to begin implementing its BMP tracking, reporting and verification program in January 2016 based upon review and approval by EPA, with full implementation by 2018.
- Continue making improvements to an existing tracking and accountability system or develop a new system for tracking new or increased loads so that it is operational by December 31, 2015.
- EPA commends Maryland for their efforts to date to review and improve its historical BMP record for most sectors, including wastewater discharge information. In the event the Geodatabase is not complete in time for 2015 progress reporting, EPA expects Maryland to use alternative methods for collecting and submitting stormwater BMP data for 2015 progress and use the Geodatabase for 2016 progress reporting. Jurisdictions should submit draft historical data, along with documentation of methods and assumptions, to CBPO by June 30, 2015, and final historical data by September 30, 2015, as part of the CBP's midpoint assessment of the Chesapeake Bay Total Maximum Daily Load (Bay TMDL).

### **Expectations and Recommendations for Development of the 2016-2017 Milestones**

#### **Load Reductions**

- EPA recommends that Maryland review their programs to offset additional nitrogen loads and set milestones to ensure Bay TMDL goals can be met in light of the new information incorporated into CBP partnership's tools for tracking progress, which indicates increases in the estimates of nitrogen loads to the Chesapeake Bay since 2007 beyond what was previously anticipated.
- USGS short-term (2001-2010) trends based on monitoring data indicate increasing phosphorus loads in the Choptank watershed (Hirsch, Moyer and Phillips, 2013). Further, a new USGS Eastern Shore report (released March, 2015) show excess manure and fertilizer are causing the worsening phosphorus trends on the Eastern Shore. Based on these monitoring results and other available science such as phosphorus saturation and transport in soils and recent poultry data, EPA believes that the level of effort to manage phosphorus may increase and recommends that Maryland consider additional actions to manage phosphorus in its 2016-2017 milestones and Phase III WIP.

### **Agriculture**

- EPA expects Maryland to develop specific milestones to address recommendations from EPA's Animal Agriculture Program Assessment (to be published this summer). EPA will work with Maryland to review the Assessment's findings.
- EPA expects Maryland to develop milestones for how to quantify and offset any increase of nutrients from increases in poultry houses that are projected for the Delmarva region.

### **Urban/Suburban Stormwater**

- In accordance with the amended stormwater legislation, EPA expects applicable Maryland counties and municipalities with Phase I MS4 permits to develop financial assurance plans to demonstrate that adequate funding is in place to implement stormwater management programs.

### **Wastewater Treatment Plants and Onsite Systems**

- EPA commends Maryland for incorporating monitoring data where possible in their tracking and reporting of non-significant wastewater treatment plants in the annual progress runs. For some non-significant facilities, Maryland relies upon default nutrient and sediment concentration values or one-time estimates. Actual monitoring data allows Maryland to verify that non-significant facilities are achieving their aggregate Bay TMDL wasteload allocations.

### **Offsets and Trading**

- EPA expects Maryland to continue to identify new or increased sector loads and offset these within the appropriate timeframe and to continue to track and account for new or increased loads identified in sector growth demonstrations.

### **Next Steps**

- EPA will provide an analysis of 2013 sector load growth demonstration to Maryland by June 30, 2015. EPA expects Maryland to update the sector load growth demonstration with new information including EPA's findings during the 2016-2017 milestone period. EPA also expects Maryland to develop offset regulations and policies if the demonstration shows that new loads are generated and need to be offset.
- EPA will work with federal partners to provide leadership and coordinate with the jurisdictions on WIP and milestone implementation. EPA and jurisdictions are working with federal agencies in 2015 to set federal facility-specific pollution reduction targets for the 2016-2017 milestones and on methods for enhanced reporting of BMPs.